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Coastal City Adaptation Project (CCAP) Agreement No. AID-656-C-14-00001

FY2015 2nd Year of the Project

3rd Quarter Report: April – June 2015

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CONTENTS

ACRONYMS

ACCRA	Africa Climate Change Resilience Alliance
ANAMA	Association of the Inhabitants and Friends of Madal (*Associação dos Naturais e Amigos da Madal*)
CCA	Climate change adaptation
CCAP	Coastal City Adaptation Project
CDS-ZC	Center for Sustainable Development - Costal Zones (*Centro de Desenvolvimento Sustentável – Zonas Costeiras*)
CDS-ZU	Center for Sustainable Development - Urban Zones (*Centro de Desenvolvimento Sustentável – Zonas Urbanas*)
CENOE	National Center for Emergency Operations (*Centro Nacional Operativo de Emergência*)
CLTS	Community led total sanitation
COP	Chief of Party
COR	Contracting Officer's Representative
CVM	Red Cross of Mozambique (*Cruz Vermelha de Moçambique*)
DCOP	Deputy Chief of Party
DRR	Disaster risk reduction
DRM	Disaster risk management
EMMP	Environmental Mitigation and Monitoring Plan
EMUSA	Municipal Housing, Urbanization and Sanitation Company (*Empresa Municipal de Moradia Urbanização e Saneamento*)
EWS	Early warning system. For CCAP this is one of the components of the SIGIC. See below.
FEWS Net	Famine Early Warning System Network
GOM	Government of Mozambique
HNI	Human Network International
ICLEI	International Council for Local Environmental Initiatives
IEE	Initial Environmental Examination
INGC	National Disasters Management Institute (*Instituto Nacional de Gestão de Calamidades*)
IUCN	International Union for Conservation of Nature
LGSAT	UNISDR's Local Government Self-Assessment Tool
MICOA	Ministry for the Coordination of Environmental Affairs (*Ministério para a Coordenação da Acção Ambiental*)
MINAG	Ministry of Agriculture and Food Security (*Ministério da Agricultura e Segurança*

	Alimentar)
MISAU	Ministry of Health (*Ministério da Saúde)*
MITADER	Ministry of Land, Environment and Rural Development (*Ministério da Terra, Ambiente e Desenvolvimento Rural*)
PLA	Local Adaptation Plans (*Plan Local de Adaptação*)
PMA	Municipal Adaptation Plan (*Plano Municipal de Adaptação*)
RESILIM	USAID Resilience in the Limpopo Basin Program
SBCC	Social and behavior change communication
SIGIC	Integrated Disaster Information Management System (*Sistema Integrado de Gestão de informação sobre Calamidades*)
SIGIU	Integrated Urban Information Management System (*Sistema Integrado de Gestão de informação Urbana*)
SMCS	Eduardo Mondlane University's School of Marine and Coastal Sciences
SMS	Short message service
SOW	Statement of work
STTA	Short-term technical assistance
UEM	Eduardo Mondlane University (*Universidade Eduardo Mondlane*)
UniLúrio	Lúrio University (*Universidade Lúrio*)
UP	Pedagogic University (*Universidade Pedagógica*)
WFP	World Food Program
WWF	World Wide Fund For Nature

Cover Photo: Quelimane's Mayor Manuel de Araújo visits community mangrove restoration site in the neighborhood of Icídua.

1. **Project Duration** 5 years

2. **Starting Date** Contract signature - November 25, 2013
Start of operations - January 16, 2014

3. **Life of Project Funding** US$14,904,209

4. **Geographic Focus**

The Coastal City Adaptation Project (CCAP) focuses its intervention on the most vulnerable coastal cities that are not currently receiving significant support from other donors. We are working in two cities: Pemba and Quelimane. Initially, the objective was to identify a third city, but in consultation with the project's COR, we are postponing this decision until activities in these two cities are sufficiently advanced to allow us to determine which interventions hold the most potential for success. An option under consideration is to identify a few key, very successful interventions, and scale them in additional cities along the Mozambican coast.

5. **Program/Project Objectives**

Proactive investments in adaptation can cost-effectively avert a significant portion of the projected costs of climate change while yielding substantial co-benefits. To facilitate this process in vulnerable Mozambican coastal communities, CCAP is working with municipal governments to increase understanding of urban adaptation issues and increase the application of management options for urban adaptation. CCAP is also engaging with academia, civil society organizations and the communities themselves to increase climate awareness and the technical expertise of future urban planners and municipal authorities, to improve the resilience of the target coastal cities and to facilitate the adoption of adaptive measures at the local level.

Objective 1: Improve the provision of climate-resilient urban services by municipalities

Pemba and Quelimane have unique challenges that require a flexible, stepwise and tailored approach to assessing, preparing for, prioritizing, and implementing climate-resilient improvements to urban services. Pemba is in the early stages of vast economic expansion as international extractive industries prepare for intensified offshore operations. Quelimane has less immediate promise of foreign investment and will require significant community buy-in and engagement to improve its provision and sustainability of resilient urban services.

The activities under Objective 1 focus on upgrading the capacity and technical skills of municipal authorities to plan, manage, and lead the execution of climate change adaptation (CCA) and disaster risk reduction (DRR) strategies. They also encompass participatory mechanisms for identifying and prioritizing adaptation options that combine technically credible and sound scientific analysis with engagement of vulnerable groups and communities in diagnosing problems and designing specific interventions. This will ensure that municipalities' CCA and DRR plans are technically reliable, responsive to local realities, and maximize the use of local resources for sustainability.

Objective 2: Increase adoption of climate resilience measures by communities, civic and community organizations, including civil society, NGOs, and faith-based organizations

Because climate change is a long-term issue with consequences that may not yet be fully visible or widely comprehended by coastal communities who are intimately familiar with extreme

events, such as inland flooding and storm surges, significant investment in social and behavior change communications (SBCC) is critical for prompting responsive action at the local level. This challenge is heightened among vulnerable populations whose more immediate needs, such as health, shelter, and food security, often trump activities that require longer planning horizons. Overcoming this obstacle requires both top-down (science and research-based expertise) and bottom-up (grassroots understanding of vulnerabilities, gender dynamics, and coping mechanisms) solutions that focus on "no-regret" measures and mainstream climate change into broader development programs.

The activities under Objective 2 aim to increase community resilience to climate change. They involve assisting Mozambican institutions to establish enduring partnerships with centers of global climate change expertise; building networks and information platforms for climate change resilience knowledge and resource sharing; developing practical and cost-effective adaptation and DRR options in cooperation with local communities; and delivering training that equip youth, both male- and female-led households (nearly one-third of Mozambique's households are female-led), and civil society with the skills to become champions for resiliency.

At the community level, our activities focus on four types of demonstration intervention: (a) improved house construction to enable more effective shelter to the most vulnerable communities; (b) improved sanitation to reduce open air defecation by constructing latrines where appropriate; (c) cost-effective potable water solutions, primarily focusing on rainwater harvesting; and (d) green infrastructure initiatives, such as mangrove restoration, in close collaboration with local and national government agencies.

Objective 3: Increase the capacity to potentially implement economic risk-management tools, such as insurance plans and contingency funds, for at-risk urban infrastructure and livelihoods

Disaster risk financing and insurance are components of the Hyogo Framework for Action, a 10-year plan to make the world safer from natural hazards, to which Mozambique is a signatory. Although they are valuable tools for disaster risk management, they can only be economically viable in supporting risk reduction in an environment where the population is simultaneously working to reduce risk through the adaptation options identified under Objectives 1 and 2. Mozambique has taken concrete steps to improve disaster response and recovery in recent years, including the completion of a Systematic Inventory and Evaluation of Risk Assessments initiative, which identified a large amount of data on disaster risk spread several Government of Mozambique (GOM) institutions, and the creation of a disaster database collecting 30 years of data on human and economic disaster losses in Mozambique under support from the Global Risk Identification Program. Yet much work remains to be done to harness this valuable data for decision-making on fiscal transfers and insurance product development. This is particularly clear when examining the penetration of insurance in the local market — only 5.1 percent of Mozambicans use any form of insurance, and even fewer use insurance to cover catastrophe risks.

The activities under Objective 3 will be postponed to allow the other activities under Objectives 1 and 2 to get off the ground. When they start, they will focus on engaging the private sector in many fronts, including that of seeking to increase awareness of and building capacity to implement risk management mechanisms. To this end we will provide targeted short-term expertise from leading risk and reinsurance specialists to engage the private sector and insurance industry in a dialogue to assess barriers to product development, and to empower

national and municipal officials to make budgeting decisions that support improved disaster planning, response, and recovery.

6. Summary of the Reporting Period

During the reporting period, CCAP made significant progress moving along five fronts. (1) The implementation of, both SIGIC, with INGC at a national level, and SIGIU with the municipalities of Pemba and Quelimane at the local level, are proceeding as scheduled. The applications of this data collection and analysis platform for effective decision-making are continuing to evolve as both INGC and municipalities identify new data collection and analysis needs. (2) We are adding new planning tools to the municipalities. We have started the process of adjusting MITADER's local adaptation plans to meet the needs of municipalities. This quarter we have met with our local counterparts in both municipalities and have agreed on the general approach. To give them a good idea of how these plans have been used in other cities and other countries, we organized a very successful study tour to Durban. On this front we continue to work on integration of the vulnerability maps to the cadaster. This involves much training and technical assistance. (3) The implementation of demonstration activities, the mangrove restoration in particular, is moving forward with the extraordinary response from the communities of Icídua and Mirazane. We have firm commitments from the Municipality of Quelimane to set aside over 20 hectares in key areas between the Bons Sinais River and the neighborhoods of Icídual and Mirazane, and we have about 6.5 hectares under natural regeneration and reforestation with seedlings produced by the communities of Madal and Mirazane. (4) We have had a particularly busy quarter with international travel. We have participated in two international events, the National Adaptation Forum in St. Louis and ICLEI's 6th Global Forum on Urban Resiliency & Adaptation where we presented the stepwise approach we are designing and adopting, and reported on progress to-date. The third international event was the study tour to Durban, already mentioned. (5) We have started the design of a social behavior change and communication strategy that will bring together our previous activities in this area and will chart the course for the future.

Scaling-up the Integrated Disaster Information Management System to the national level and launch of 3-2-1 On-demand Information Service

Recognizing the risks posed by the increasingly severe effects of climate change in Mozambique, CCAP and the National Institute of Emergency Management (Instituto Nacional de Gestão de Calamidades, INGC) hosted a workshop in Beira on May 7 and 8 to plan the expansion of the SMS-based Integrated Disaster Information Management System (Sistema Integrado de Gestão de informação sobre Calamidades, SIGIC) that was first implemented in the Municipalities of Pemba and Quelimane with CCAP assistance in 2014. Initially known as the Early Warning System (EWS), the SIGIC is more than that. Its most significant and innovative feature is information sharing and data collection for emergency preparedness and response. Bonifácio António, INGC National Coordination Director, Ana Cristina Manuel, INGC National Director for Prevention and Mitigation, and Casimiro Antonio, CCAP Deputy Chief of Party for Programs, facilitated sessions to define the process of scaling up the system to the national level (Figure 1). Gabriel Belém Monteiro, the head of the National Emergency Operation Center (Centro Nacional Operativo de Emergência, CENOE) for central Mozambique, said expanding "this system is timely as the recent disaster in Zambézia Province has shown that our preparedness level was not enough." The Beira workshop has also shown that the SIGIC provides disaster managers the ability to capture, analyze, and share relevant data and information that is crucial for timely and informed decision-making. To support the expansion and effective operation of SIGIC, CCAP donated computers to the INGC provincial delegation of

Cabo Delgado and Zambézia and the three regional CENOEs (South based in Vilanculos, Central based in Caia and North based in Nacala). Next quarter, CCAP will support the training of regional technical staff to create the capability in the three regional centers and the national headquarters to act as the first data collectors and information managers in preparation for the next storm season.

Figure 1. Planning session for the expansion of the SIGIC held in Beira in May 2015 with senior INGC officials. Ana Cristina Manuel, INGC's Director of Prevention and Mitigation (center), chaired this event.

One pillar of the National Strategy for Adaptation and Mitigation of Climate Change impacts for 2012-2025 is access to relevant information and knowledge that enables more effective adaptation to climate change. To contribute towards this goal, CCAP initiated work with INGC on the design and delivery of information on a mobile technology platform called the 3-2-1 On-demand Information Service. This platform will allow INGC and other entities to deliver information through voice, SMS, and USSD at no cost to the mobile subscriber via existing mobile phone networks. On April 21 CCAP kicked off this effort with a workshop that brought together key actors working on CCA and DRR, including INGC, the Ministry of Land, Environment, and Rural Development (Ministério da Terra, Ambiente e Desenvolvimento Rural, MITADER), the Ministry of Agriculture and Food Security (Ministério da Agricultura e Segurança Alimentar, MINAG), the Ministry of Health (Ministério da Saúde, MISAU), the World Food Program (WFP), the Famine Early Warning System Network (FEWSNET), World Wide Fund

For Nature (WWF), the Africa Climate Change Resilience Alliance (ACCRA),[1] the Mozambique Red Cross (CVM), the International Union for Conservation of Nature (IUCN) and Eduardo Mondlane University (Universidade Eduardo Mondlane UEM), in addition to representatives from Municipalities of Pemba and Quelimane, to select and prioritize relevant themes in CCA and DRR to be used in the 3-2-1 Service. Many of the participants of the April workshop met again on June 16-17 to form the 3-2-1 Service Content Committee to draft the messages that will be included. The project anticipates that the work of the Content Committee will be concluded in time to launch the 3-2-1 On-demand Information Service the third week of September.

Implementation and application of the Integrated Urban Information Management System

Mayor Araújo and Mayor Tagir requested CCAP's support to address the problem of lack of reliable data to inform decision-making regarding the implementation of effective CCA and resilience solutions. To do so, CCAP adapted the platform that hosts SIGIC's data collection element developed with INGC to create the Integrated Urban Information Management System (Sistema Integrado de Gestão de informação Urbana, SIGIU). In April, CCAP trained municipal staff in Pemba and Quelimane on how to design questionnaires for specific data collection efforts, conduct the data collection, and interpret the information. After the training, municipal technicians in Pemba independently created questionnaires to collect data on solid waste removal and sanitation issues, which they will conduct in targeted neighborhoods soon. Below is a schematic description of this system (Figure 2).

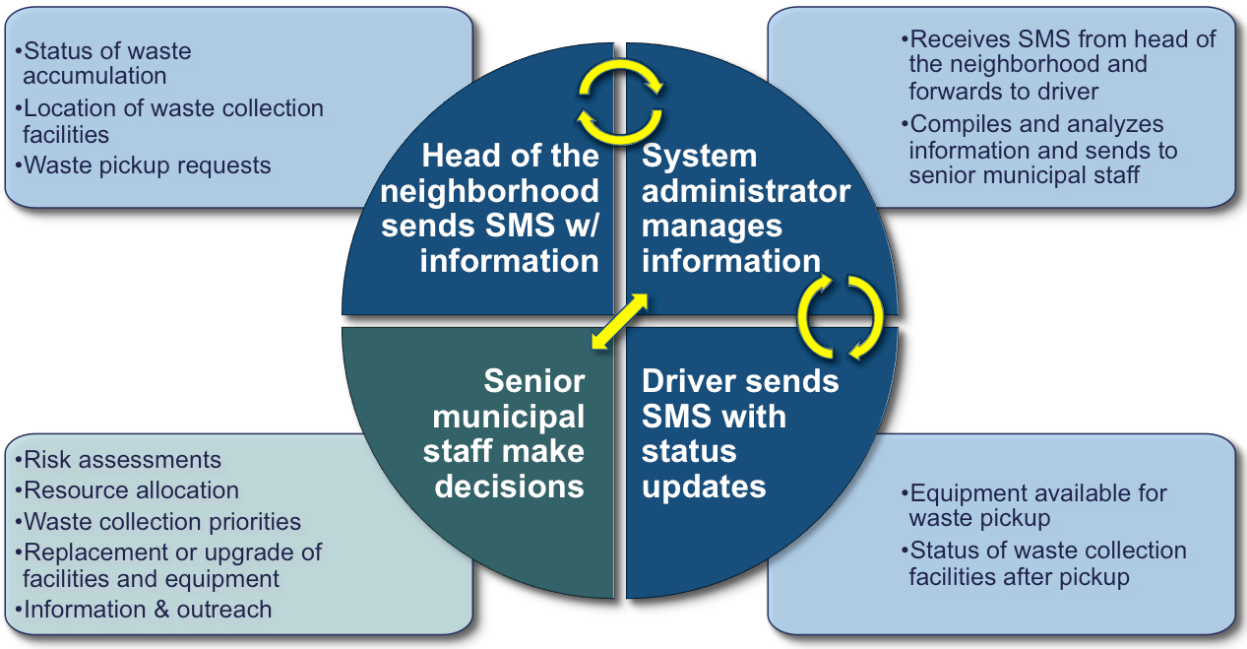

Figure 2. Schematic description of one of the applications of the SIGIU to track and manage solid waste collection operations in Quelimane.

Following the initial discussions for the establishment of the SIGIU last February and the questionnaire design and training sessions held in April, CCAP conducted refresher trainings for

[1] ACCRA is a consortium formed by Save the Children, CARE, Oxfam and Overseas Development Institute. In Mozambique, UEM's Department of Agronomy and Forest Engineering is also part of this consortium.

Municipal authorities in Pemba and Quelimane on the SIGIU last June. The participants reported that they have a more in-depth understanding of how they can use the system through targeted surveys to gather data on key issues. Additionally, the training helped enhance senior municipality managers' commitment to improve the overall information management in the municipality. "This system will help with rapid data collection; processing and management and mainly ensuring its rapid access," commented Renato Da Silva, Quelimane Councilmember for Planning.

In April, the project, with assistance from municipal staff and student volunteers from UniLúrio in Pemba and the UEM's School of Marine and Coastal Science (SMCS) in Quelimane, conducted a rapid assessment of the socio-economic conditions of households in Icídua and Paquitequete. The assessment gathered data on 16 variables aimed at better understanding the type of houses in those communities and their access to basic sanitation and water services. CCAP is using the data to: (1) inform decisions of the climate-smart household infrastructure activity that the project will undertake with UN-Habitat in the coming weeks; (2) inform the design of the SBCC strategy as part of the formative research findings; and, (3) assess the project's progress towards enhancing local adaptation and resilience in these neighborhoods as part of the project's baseline. Additionally, with CCAP support, both municipalities will use the assessment findings to inform and prioritize adaptation interventions that address the most pressing needs in these high-risk areas. This assessment sought to interview every household in both neighborhoods. The success was high, with approximately 97% of the households interviewed. Based on this experience, the project has designed the next version of this assessment, which now includes 44 variables and will follow the same survey methodology used for the initial questionnaire.

Municipal Adaptation Plans

The National Strategy for Adaptation and Mitigation of Climate Change impacts for 2012-2025, mentioned before, also calls for the development of local CCA plans. With the support from ACCRA, MITADER developed several such plans at the district level. CCAP, in partnership with ACCRA, is helping the municipalities build on that experience to prepare their municipal adaptation plans (planos municipais de adaptação, PMA). The goal is for PMAs to become one of the core tools municipalities have to determine adaptive priorities for addressing the anticipated impacts from climate change.

In April, CCAP, in collaboration with ACCRA, organized and conducted an initial working session with municipal technical staff from the urban planning, infrastructure, communication and climate change departments to discuss this approach and to define the steps necessary to move this initiative forward. One of the conclusions of those initial meetings was the need to show the municipalities how other cities have approached their municipal adaptation planning. In this context, and building on previous independent contacts of USAID and ACCRA, CCAP approached the South African Municipality of eThekwini, where Durban is located, to explore their interest and request their support to host a study tour for the mayors of both cities and other senior municipal officials. Durban city officials graciously offered their full support. Having hosted similar study tours from other African cities, we collaborated to put together a productive agenda. Durban was the ideal choice for a number of reasons. Similar to Pemba and Quelimane, Durban is exposed to a wide variety climate change effects, including sea level rise, floods, cyclone and erosion, due in part to its long coastline along the Indian Ocean. Durban has successfully put in place CCA measures to mitigate the anticipated impacts associated with climate change events, which were guided by their Municipal Adaptation Plan.

The Durban study tour, which took place May 18-21, focused on showing representatives from Pemba and Quelimane how PMAs can play a central role in strengthening local-level adaptation efforts and response mechanisms, and, more importantly, how to integrate these efforts into broader planning and management processes. The participants of the study tour included representatives from Quelimane (Mayor Manuel de Araújo; João de Brito, Director of the Environment and Climate Change Department; and, Nicole Dinis, representative of the Planning and Urban Development) and from Pemba (Mayor Tagir Carimo; Marques Naba, Head of the Infrastructure and Urban Planning Department; and, Derek Carlos, Officer of the Planning and Finance Department). Other participants in the study tour included Melq Gomes, ACCRA coordinator for Mozambique; Luis Artur, Faculty at UEM's Department of Agronomy and Forest Engineering; Izidine Opressa, representative of the Government of Mozambique's Center for Sustainable Development – Urban Zones (CDS-ZU), and Casimiro Antonio, CCAP's Deputy Chief of Party for Programs.

Figure 3. Mayors Tagir Carimo of Pemba (center left) and James Nxumalo of Durban (center right) with representatives of the delegation of Mozambique and staff of the municipality of Durban during the study tour to this South Africa city.

Participants were exposed to the way Durban is approaching climate change adaptation, from the process of creating a common vision for the city in the context of the changing climate; to community based ecosystem and wetland management; city reforestation with native species; solid waste management; coastline protection; planning and implementing climate resilient infrastructure; and the role of public-private-partnerships defined broadly. The participants were able to see first-hand how all of these elements are incorporated into the city's strategy and adaptation plan.

The participants met with James Nxumalo, the Durban Municipality Mayor, and exchanged ideas for the future of their respective cities to address climate change challenges (Figure 3). During the visit, both Mayor Carimo and Mayor Araújo reaffirmed their commitment to improve their respective cities' preparedness to deal with climate change impacts through the development of their respective PMAs. Their leadership and support will strengthen CCAP's efforts to mainstream CCA planning issues in all relevant municipal sectors.

Vulnerability mapping and its application

On May 13, CCAP hosted a booth at the conference "Science and Technology in Mozambique," an event sponsored by the Ministry of Science and Technology with support from USAID. CCAP presented the vulnerability, sensitivity and adaptive capacity maps that were developed with the Municipalities of Pemba and Quelimane as tools to assist decision-making on urban development issues. CCAP is exploring potential cooperation with University Wutivi (formerly the Institute of Technology and Management), which is working on a national hydrology model and expressed interest in incorporating their model into the vulnerability scenario planning involving the Bons Sinais River in Quelimane.

Figure 4. Demonstration of the integration of the vulnerability maps with the cadaster lead by Marques Naba, Head of Urbanization and Infrastructure of Pemba (second from the right) and his team during CCAP's annual review session. From left to right: Casimiro Antonio, CCAP DCOP/Programs; Melissa Logan, SVP for Southern Africa, Chemonics; Colin Quinn, CCAP's COR, USAID; Debora Freitas, CCAP's Home Office Director, Chemonics; and Tegan Blaine, USAID's Africa Buerau Senior Climate Change Advisor.

Throughout the reporting period we continued to work with both municipalities to fully integrate the vulnerability maps with the cadaster (Figure 4). The first step is to use this tool to inform the building permit applicants for whether or not their property is in a relatively high risk, vulnerable area. The second step is to provide advice to the applicants on how to reduce their exposure and increase their resilience. Once the proposed work on climate smart household infrastructure with UN Habitat starts, we will also train the municipality on how to provide appropriate guidance to applicants. Finally, the third step is enforcement of existing zoning and other restrictions.

Green Infrastructure: Mangrove restoration in Quelimane

In April, following extensive consultations with various stakeholders, including UEM's SMCS, the Pedagogic University, the Center for Sustainable Development – Coastal Zones (CDS-ZC), the Provincial MITADER, ANAMA, the municipality of Quelimane, and community members, CCAP and the communities of Icídua and Mirazane initiated mangrove restoration field work. Working with ANAMA and UEM's SMCS, the project supported an existing nursery in Madal (a community outside the Municipality of Quelimane with experience in the production of mangrove seedlings) and established a new nursery in Mirazane. CCAP is evaluating the possibility of establishing a third nursery in Chuabo Dembe. With its partners, CCAP will use these nurseries to produce the seedlings that will supplement the natural regeneration for the restoration of approximately 20 hectares of mangrove stands in critical areas to protect Icídua neighborhood from floods (Figure 5).

By the end of June, CCAP, in collaboration with the municipality, the Provincial MITADER, UEM's SMCS, ANAMA, and community volunteers, began the process of transporting mangrove seedlings from the CCAP-supported nurseries in Mandal and Mirazane to the target restoration site in Icídua. Since the field activities began, CCAP has assisted in the production of more than 55,000 seedlings in both nurseries, and in the restoration of approximately 6.5 hectares of mangroves in Icídua, along the Bons Sinais River.

Figure 5. Mangrove seedlings being delivered by a community member of Icídua, while the site being reforested is posted as a municipal environmental protection area.

Social and behavior change and communications activities

To increase awareness and knowledge as well as change behaviors and social norms in how cities, their communities, and their residents address their vulnerability to climate change, CCAP began designing a comprehensive SBCC strategy in April. As part of this process, the CCAP team conducted site visits and met with stakeholders from Quelimane, including Mayor Araújo, Jõao de Brito, Director of the Environment and Sanitation Department, and technical staff from

the Municipal Housing, Urbanization and Sanitation Company (Empresa Municipal de Moradia Urbanização e Saneamento, EMUSA) and community members in Icídua. In Pemba, the team met Mayor Tagir, Armando John, Senior Advisor to the Mayor, and a group of schoolteachers from Paquitequete. CCAP used the data collected in the municipality-wide socio-economic assessment, mentioned above, as part of its formative research for the SBCC strategy.

In addition to finalizing the SBCC strategy, we continue to support communication efforts that promote CCA, specifically, and sound environmental management. In this context, CCAP supported Quelimane's World Environment Day celebration. Students, community members, government, and NGO representatives gathered at the Sangarivera Secondary School in Quelimane to celebrate the day. During the event, CCAP staff and municipal officials presented the tools that the city is developing to enhance its resiliency to climate change, including incorporating vulnerability maps into the municipal cadaster to help improve urban planning and restoring mangroves in the new environmental protection areas to reduce the intensity of tidal flooding and storm surges.

Technical exchanges and participation in international events

Carlos E. Quintela, CCAP COP, attended the National Adaptation Forum held in St. Louis, MO, May 11-14, 2015, and participated in the symposium panel "*A Conversation: Climate Change Adaptation and International Development*." During the symposium the audience and the panelist engaged in a lively and informative discussion about climate change adaptation in developing countries. It was a learning experience for panelist and audience alike, and it was a great opportunity to introduce the concept of the stepwise approach being implemented by CCAP in Pemba and Quelimane. The members of the panel were Joyce Coffee (Notre Dame Global Adaptation Index), Jennifer Howard (Conservation International), Britt Parker (National Oceanic and Atmospheric Administration), Carlos E. Quintela (Chemonics International) and Joel Smith (Abt Associates). Colin Quinn, USAID's CCAP COR designed, organized and coordinated the symposium.

At ICLEI's 6th Global Forum on Urban Resiliency & Adaptation held in Bonn last June 8-10, the CCAP team organized and lead the workshop "Reality Check: A stepwise approach to adaptation planning and implementation in two coastal cities in Mozambique." The workshop consisted of four presentations which outlined the work that CCAP is supporting in Pemba and Quelimane with their respective municipalities, and at a national level with INGC. Following a brief introduction by CCAP COP, Carlos E. Quintela, Quelimane's Mayor Manuel de Araújo in his presentation "*Local Adaptation Planning, Vulnerability Mapping and Other Climate Change Adaptation Tools*" discussed the tools and approached that are being gradually adopted by both municipalities. Armando John, Senior Advisor to Mayor of Pemba, followed with the presentation "*The Power of Results on the Ground: Demonstration Activities,*" which illustrated the demonstration projects under implementation and planned to promote climate-smart household infrastructure and green infrastructure. The final presentation of the workshop was "*Use of Mobile Phone Technology in Disaster Preparedness and Response*" by INGC's Director of Prevention and Mitigation, Ana Cristina João Manuel. She presented INGC, its structure and priorities, and described in detail INGC's implementation of the Integrated Disaster Information Management System, which is being designed in cooperation with CCAP. Following the presentations there were discussion groups and a wrap-up session lead by CCAP's home office manager, Lee Gerston. Beyond the workshop, the forum provided CCAP's partners the opportunity to discuss the challenges, successes, and opportunities in building more resilient cities with local government leaders, practitioners, and academics, and to tap into a wide-ranging network of organizations and experts working around the world (Figure 6).

Figure 6. Participants from Mozambique and CCAP to ICLEI's 6th Global Forum on Urban Resiliency & Adaptation held in Bonn last June 8-10. Clockwise from left to right: Carlos E. Quintela, CCAP COP; Fernando Pequenino, Advisor to the Mayor of Quelimane; Lee Gerston, CCAP's home office manager; Armando John, Senior Advisor to the Mayor of Pemba; Manuel de Araújo, Mayor of Quelimane; and Ana Cristina Manuel, INGC's Director of Prevention and Mitigation.

Building on the exchange visit to Durban in June, Pemba Mayor Tagir Carimo and Quelimane Mayor Manuel de Araújo formally signed the Durban Adaptation Charter. As signatories to the Charter, which was launched at the UNFCCC's 17th Conference of the Parties in 2011, the cities of Quelimane and Pemba commit their administrations to take climate adaptation action to help their residents better respond to and cope with climate change risks, thereby reducing vulnerability. Pemba and Quelimane joined Maputo as the only Mozambican cities to sign the Durban Adaptation Charter. CCAP will leverage this public commitment by launching the participatory process to develop formal PMAs with the ACCRA consortium in July.

VIP visits

On May 21, US Ambassador to Mozambique Douglas Griffiths visited Quelimane. His agenda included a review of CCAP's activities and results to date. Counterparts in the Quelimane Municipality's Urbanization and Construction Department then demonstrated how they have worked with CCAP to incorporate vulnerability maps into the municipal cadaster to inform land use decisions. Ambassador Griffiths concluded his trip with a visit to the mangrove restoration site in Icídua (Figure 7).

Figure 7. US Ambassador Douglas Griffiths (second from right) visits mangrove restoration site in Icídua, Quelimane, with Mayor Manuel de Araújo (third from the right) and Carlos E. Quintela, CCAP COP (far right). In the background community members are watering the newly planted mangrove seedlings.

On May 16, CCAP facilitated a meeting between USAID Agriculture, Environment, and Business Office outgoing director Tim Born, incoming director John Irons, and Pemba municipal counterparts to discuss efforts to incorporate climate change into the city's planning processes. Following a review of the use and composition of the emergency management kits for INGC's local emergency response committee, they visited the Paquitequete neighborhood to learn about CCAP's activities and to see firsthand the conditions in the field.

7. Project Performance Indicators

Below is a summary of the progress made toward the targets defined in the M&E Plan.

Indicators	Baseline	TOTAL FY14	FY15 Q1	FY15 Q2	FY15 Q3	TOTAL FY15	TOTAL	LOP Target	% LOP	Indicator Activities
1. Numerical score on UNISDR's Local Government Self-Assessment Tool (LGSAT) (Impact)										The LGSAT baseline data collection was completed in FY15 Q1 as a way to help cities better understand their ability to mitigate potential disasters and identify gaps and to guide city stakeholders in setting priorities for achieving short- and long-term goals. CCAP will use this indicator to monitor the impact of its activities (follow-up assessments will be conducted at project mid-point and before the end of the project).
Pemba	1.8							TBD	0.0%	
Quelimane	2.0							TBD	0.0%	
2. Number of stakeholders with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance (Outcome, GCC required indicator 4.8.2-26) [GCC EG11.1-1 and GCC EG11.3-1]	0	1	0	29	54	83	84	5,050	1.7%	To date 67 individuals have demonstrated their capacity to adapt to the impact of extreme weather events by implementing community protections activities directly in the field with supervision of community-based organizations in Icídua and Mirazane neighborhoods in Quelimane. An additional seven (7) individuals have demonstrated their capacity to use the vulnerability maps to improve the digital cadaster in their municipality and make citizens aware about their plots in vulnerable areas. Lastly, nine (9) individuals used climate information in their decision making to improve resilience in the municipal area.
4. Number of institutions with improved capacity to assess/address climate change risks issues as result of USG assistance (Outcome, F Indicator 4.8.2-14) [GCC EG11-3]	0	8	0	2	1	3	11	20	50.0%	CCAP worked with more one (1) different local institution in FY15 Q3 on CCA and DRR issues. Through their engagement with CCAP, they have increased their capacity to help coastal communities survive, minimize losses, and quickly recover from increasingly more frequent and more intense weather events by working together to replace and recover the green infrastructures in their communities as a group.
5. Number of CCA or DRR tools, technologies and methodologies developed, tested and/or adopted (Outcome) [GCC EG11.1-3]	0	6	0	2	0	2	8	10	80.0%	CCAP developed, tested and is in the process of implementing the SGIU in Pemba and Quelimane. Each municipality will have its own SIGIU account managed by their respective data managers responsible for the coordinating the design of specific questionnaires and collection of the data.
7. Number of person hours of training completed in climate change as a result of USG assistance (Output, F Indicator 4.8.2-29)	0	1,251	0	1,708	210	1,918	3,169	9,000	35.2%	CCAP conducted trainings on SIGIC for municipality staff and community leaders in Pemba and Quelimane. The team also conducted capacity building sessions on how to integrate the vulnerability mapping in the cadaster.
8. Number of proposals submitted for CCA or DRR projects (Output)	0	1	0	0	2	2	3	10	30.0%	With CCAP support, Pemba and Quelimane each submitted a proposal to the CityLinks Program managed by ICMA.

Indicators	Baseline	TOTAL FY14	FY15 Q1	FY15 Q2	FY15 Q3	TOTAL FY15	TOTAL	LOP Target	% LOP	Indicator Activities
10. Number of people with increased knowledge of climate change impacts and adaptation strategies as result of USG assistance (Outcome) [GCC EG11.3-2]	0	0	1	0	7	8	8	500	1.6%	CCPA trained seven (7) municipality staff from Pemba and Quelimane on how to use the knowledge obtained in the training to implement the digital cadaster in their day-to-day work.
11. Number of person-contact hours of information disseminated about climate change vulnerabilities and adaptive options (Output)	0	278,110	0	0	0	0	278,110	3,000,000	9.3%	During the CCAP launch event the project prepared different messages related to CCA and DRR issues, which were disseminated through radio announcements, debates, and print banners in both municipalities. The radio broadcasts and debates were done in Portuguese and other local languages each (in Quelimane: Chuabo and Lomue and in Pemba: Maconde, Emacua and Mwani). No additional work has been done this quarter.
12. Proportion of CCA or DRR interventions implemented with community contributions (Outcome)	0%	0%	0%	100%	100%	100%	100%	20%	500.0%	100% of interventions implemented in the communities were with their direct involvement in the activities.
13. Proportion of individuals engaged in CCAP activities who are youth (Output)		16%	0%	54%	15%	69%	85%	20%	425.1%	85% of the people participated in trainings and technical assistance were youth (people from 16 to 29 years old) in Pemba and Quelimane.

8. Collaboration with other Donors and Projects

The proposed grant agreement with UN Habitat was completed and submitted to USAID for review and approval. Field activities will start as soon as the grant is approved.

The statement of work for contract with UEM's Department of Agriculture and Forest Engineering, in collaboration with ACCRA to implement the PMAs was finalized and will be signed in early July.

9. Key Activities Planned for Next Quarter

Scaling-up the Integrated Disaster Information Management System to the national level and launch of 3-2-1 On-demand Information Service. We will start training the technical teams of INGC's headquarter and regional offices in three workshops to be held in Vilanculos (South), Caia (Center) and Nacala (North). This will build the capacity of INGC to use the SIGIC during this year's storm season. We will complete the drafting of the 3-2-1 Service messages. The formal launch of, both SIGIC and 3-2-1 On-demand Information Service the third week in September.

Consolidation of the SIGIU and the integration of vulnerability maps with the cadaster. We will continue to provide support to the municipalities as they use the SIGIU to collect and analyze data on the priority areas they have already identified. Similarly, we will continue to work with the cadaster team in Pemba and Quelimane to fine-tune the integration of the vulnerability maps with their cadaster database, and to use this tool to address broader municipal land use management concerns, such as the awarding of DUATs and construction permits.

Municipal Adaptation Plans. With all the preliminary activities completed, the CCAP-ACCRA-UEM team will move forward with the next steps of support to Pemba and Quelimane in the preparation of their respective PMAs. In the case of Quelimane, which has started preparing their master infrastructure plan and constructing a vision for the city's 100 anniversary in 27 years, CCAP will be sending a consultant from the PMA support team to assist the municipality with these efforts.

Green Infrastructure: Mangrove restoration in Quelimane. With the areas for mangrove restoration already identified, we will continue to support the communities of Icídua and Mirazane with the management of their nurseries and the fields that have been reforested, and we will continue to expand the area under active restoration. We will organize a stakeholders' workshop in August to bring together scientists, government, civil society and the community to create awareness and fine-tune our approach to mangrove restoration.

Climate-smart household infrastructure. We expect the grant agreement with UN-Habitat to be approved by August so we can start the design and construction of climate-smart model houses well in advance of the storm season. As described in previous reports, we will be using local materials and builders, to demonstrate cost-efficient adaptive options to vulnerable households and municipal authorities. It is expected that the model houses will significantly improve the target population coping capacity and resilience to climate change impacts.

Climate Change Adaptation (CCA) and Disaster Risk Management (DRM) capacity training package. We expect the grant agreement to be approved in July. The original plan was to first adapt and adjust UEM's masters program on CCA and DRM to train and prepare municipal officials and other local stakeholders to better cope with weather related impacts facing their

cities as well as prepare the municipalities to deliver more climate resilient services. Then we would bring in TechChange, a subcontractor named in the original proposal to develop an online version of the course. However, next quarter we will look for ways to start the engagement of TechChange sooner to accelerate the delivery of the online version of the course through as many academic outlets as possible.

Social and behavior change and communications activities. We will complete the SBCC strategy by the middle of next quarter and will start its implementation with activities in the field targeting sanitation and green infrastructure. We will continually adjust the pace and scope of these activities to achieve maximum effect. We will time some of these start-up activities with the launch of the 3-2-1 On-demand Information Service at the end of September.

10. Evaluation/Assessment Update

Evaluations, Assessments, Studies and Audits	
Completed: List evaluations, assessments, studies and/or audits held last year	Major Findings/Recommendations
CCAP staff and USAID officials conducted the project's annual review from April 12 to 17. USAID representatives Colin Quinn, Tegan Blaine and Eduardo Langa; Chemonics representatives Melissa Logan and Debora Freitas; and the CCAP technical team participated in the review process. In Pemba, the review team received input from Minoz Hassan, acting Mayor; Marques Naba, Head of the Infrastructure and Urban Planning Department; and Abdulremane Chaca, who is responsible for data collection and information management. The team also conducted a site visit of the current mangrove areas in the Cariacó neighborhood, which are at high risk of deforestation. In Quelimane, the review team gathered information from Mayor Araújo and his senior management team and visited the mangrove restoration sites in Icídua and Mirazane and the nursery in Madal.	The initial outcomes of this review process are as follows: (1) reinforce the need to have "boots on the ground" in the municipalities; (2) ensure the project and the municipality's vision are properly aligned and effectively communicated to all stakeholders; (3) focus CCAP interventions on promoting data-based decisions to evaluate and then implement no-regret adaptive measures, while still recognizing the municipalities' need for assistance in providing basic services; and, (4) increase and strengthen communication of CCAP's successful, planned interventions and activities.
Planned: List evaluations, assessments, studies and/or audits planned for next year	
None planned for this period.	

11. Success Stories and Photos

Five baseline stories—early warning system, mangrove restoration, climate smart housing, clean water and sanitation—were completed and will be used as a starting point for documenting and communicating project progress. We continue to build CCAP's geo-tagged photo archive, so we, in addition to the images for reports and communications materials have a verifiable record of date, time and location of when and where the pictures were taken.